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(to be used for all correspondence after initial filing)

Application Number 10/079,035

Filing Date 02/19/2002

First Named Inventor RYALS

Group Art Unit 1638

Examiner Name TBA

Total Number of Pages in This Submission 9

Attorney Docket Number 21212C

ENCLOSURES (check all that apply)

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- ☐ Fee Attached
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- ☐ After Final
- ☐ Affidavits/declaration(s)
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- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
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- ☐ Response to Missing Parts/ Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

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Firm or Individual name

Randee Schwartz, Attorney for Applicants, Registration No. 45,085

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CERTIFICATE OF MAILING

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RYALS, et al.

Serial. No. 10/079,035

Filed: February 19, 2002

For: Gene Involving a Protein Involved in
the Signal Transduction Cascade
Leading to a Systemic Acquired
Resistance in Plants

Art Unit: 1638

Examiner: TBA

Atty Docket: 21212C

Confirmation No.: 7909

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98. The items listed on the enclosed Form PTO-1449 may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application. Copies of these references may be found in parent application 09/577,799. The Examiner is respectfully requested to fully consider the items in relation to this application and to indicate that each reference was considered by returning a copy of the initialed PTO 1449 forms.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants reserve the right to dispute any of the listed documents as prior art during examination.

Further, Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application. Further, the submission of the Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other material information may exist.

In accordance with 37 CFR §1.97(b)(3), no fee is believed to be required for consideration of this Statement since it is being submitted before the mailing date of a first Office Action on the merits. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 50-1744.

Respectfully submitted,



Randee Schwartz
Attorney for Applicants
Registration No. 45,085

Syngenta Biotechnology, Inc.
P. O. Box 12257
Research Triangle Park, NC 27709-2257
Telephone: 919-765-5098
Date: 6 | 21 | 02

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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE |
|---------------------|----|-----------------|----------|--------------|-------|----------|-------------|
| | AA | 5,986,082 | 11/16/99 | Uknes et al. | 800 | 279 | 12/12/97 |
| | AB | 5,614,395 | 3/25/97 | Ryals et al. | 435 | 6 | 1/13/94 |
| | AC | 6,031,153 | 2/29/00 | Ryals et al. | 800 | 279 | 12/23/97 |
| | AD | 6,091,004 | 7/18/00 | Ryals et al. | 800 | 301 | 6/20/97 |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | OFFICE | CLASS | SUBCLASS | TRANSLATION | |
|--|----|-----------------|---------|--------|-------|----------|--------------------------|--------------------------|
| | | | | | | | YES | NO |
| | AC | 0 534 858 | 3/31/93 | EPO | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | AD | WO 95/19443 | 7/20/95 | PCT | | | <input type="checkbox"/> | <input type="checkbox"/> |
| | AE | WO 94/16077 | 7/24/94 | PCT | | | <input type="checkbox"/> | <input type="checkbox"/> |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

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| AF | Alexander et al., <i>Increased tolerance to two oomycete pathogens in transgenic tobacco expressing pathogenesis-related protein 1a</i> <i>Proceedings of the National Academy of Sciences</i> , Vol. 90, (1993) pp. 7327-7331 |
| AG | Bell et al., <i>Assignment of 30 Microsatellite Loci to the Linkage Map of Arabidopsis</i> <i>Genomics</i> , Vol. 19, (1994) pp. 137-144 |
| AH | Bhat, K.S., <i>Generation of a plasmid vector for deletion cloning by rapid multiple site-directed mutagenesis</i> <i>Gene</i> , Vol. 134, (1993) pp. 83-87 |
| AI | Bi et al., <i>Hydrogen peroxide does not function downstream of salicylic acid in the induction of PR protein expression</i> <i>The Plant Journal</i> , Vol. 8(2), (1995) 235-245 |
| AJ | Bouchez et al., <i>A new YAC library for genome mapping in Arabidopsis</i> Abstract, 6 th International Conference on Arabidopsis Research (1995) |
| AK | Bowie J.U. et al., <i>Deciphering the Message in Protein Sequences: Tolerance to Amino Substitutions</i> <i>Science</i> , Vol. 247 (1990) pp. 1306-1310 |
| AL | Bowling et al., <i>A Mutation in Arabidopsis That Leads to Constitutive Expression of Systemic Acquired Resistance</i> <i>The Plant Cell</i> , Vol. 6 (1994) pp. 1845-1857 |

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| AM | Broun et al., <i>Catalytic Plasticity of Fatty Acid Modification Enzymes Underlying Chemical Diversity of Plant Lipids</i> <i>Science</i> , Vol. 282 (1998) pp. 1315-1317 |
| AN | Büsches et al., <i>The Barley Mlo Gene: A Novel Control Element of Plant Pathogen Resistance</i> <i>Cell</i> , Vol. 88 (1997) pp. 695-704 |
| AO | Cameron et al., <i>Biologically induced systemic acquired resistance in Arabidopsis thaliana</i> <i>The Plant Journal</i> , Vol. 5(5) (1994) pp. 715-725 |
| AP | Cao et al., <i>Characterization of an Arabidopsis Mutant That Is Nonresponsive to Inducers of Systemic Acquired Resistance</i> <i>The Plant Cell</i> , Vol. 6 (1994) pp. 1583-1592 |
| AQ | Cao et al., <i>The Arabidopsis NPR1 Gene that Controls Systemic Acquired Resistance Encodes a Novel Protein Containing Ankyrin Repeats</i> <i>Cell</i> , Vol. 88, (1997) pp. 57-63 |
| AR | Cao et al., Genbank Accession No. U76707, <i>The Arabidopsis NPR1 gene that controls systemic acquired resistance encodes a novel protein containing ankyrin repeats</i> <i>Cell</i> , Vol. 88(1), (1997) pp. 57-63 |
| AS | Century et al., <i>NDR1, a locus of Arabidopsis thaliana that is required for disease resistance to both a bacterial and a fungal protein</i> <i>Proceedings of the National Academy of Science</i> , Vol. 92, (1995) pp. 6597-6601 |
| AT | Creusot et al., <i>The CIC library: a large insert YAC library for genome mapping in Arabidopsis thaliana</i> <i>The Plant Journal</i> , Vol. 8(5) (1995) pp. 763-770 |
| AU | Delaney et al., <i>A Central Role of Salicylic Acid in Plant Disease Resistance</i> <i>Science</i> , Vol. 266 (1994) pp. 1247-1250 |
| AV | Delaney et al., <i>Arabidopsis signal transduction mutants defective in chemically and biologically induced disease resistance</i> , Abstract, 6 th International Meeting on Arabidopsis Research, (1995) |
| AW | Delaney et al., <i>Arabidopsis signal transduction mutant defective in chemically and biologically induced disease resistance</i> <i>Proceedings of the National Academy of Science USA</i> , Vol. 92 (1995), pp. 6602-6606 |
| AX | Delaney, T.P., <i>Genetic Dissection of Acquired Resistance to Disease</i> <i>Plant Physiology</i> , Vol. 113 (1997) pp. 1-12 |
| AY | Dietrich et al., <i>Arabidopsis Mutants Simulating Disease Resistance Response</i> <i>Cell</i> , Vol. 77 (1994) pp. 565-577 |
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| BA | Friedrich et al., <i>A benzothiadiazole derivative induces systemic acquired resistance in tobacco</i> <i>The Plant Journal</i> , Vol. 10 (1996) pp. 61-70 |

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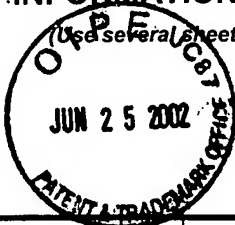
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| BB | Gaffney et al., <i>Requirement of Salicylic Acid for the Induction of Systemic Acquired Resistance Science</i> , Vol. 261 (1993) pp. 754-756 |
| BC | Gatz C., <i>Chemical Control of Gene Expression Annual Review Plant Physiology and Plant Molecular Biology</i> , Vol. 48 (1997) pp. 89-108 |
| BD | Glazebrook et al., <i>Isolation of Arabidopsis Mutants With Enhanced Disease Susceptibility by Direct Screening Genetics</i> , Vol. 143 (1996) pp. 973-982 |
| BE | Görlach et al., <i>Benzothiadiazole, a Novel Class of Inducers of Systemic Acquired Resistance, Activates Gene Expression and Disease Resistance in Wheat The Plant Cell</i> , Vol. 8 (1996) pp. 629-643 |
| BF | Greenberg et al., <i>Programmed Cell Death in Plants: A Pathogen-Triggered Response Activated Coordinately with Multiple Defense Functions Cell</i> , Vol. 77 (1994) pp. 551-563 |
| BG | Hebsgaard et al., <i>Splice site prediction in Arabidopsis thaliana pre-mRNA by combining local and global sequence information Nucleic Acids Research</i> , Vol. 24 (1996) pp. 3439-3452 |
| BH | Hill, M.A., and Preiss, J. <i>Functional Analysis of Conserved Histidines in ADP-Glucose Pyrophosphorylase from Escherichia coli Biochemistry Biophysics and Research Communications</i> , Vol. 244 (1998) pp. 573-577 |
| BI | Hunt et al., <i>Systemic Acquired Resistance Signal Transduction Critical Reviews in Plant Sciences</i> , Vol. 15 (1996) pp. 583-606 |
| BJ | Hunt et al., <i>Recent Advances in Systemic Acquired Resistance Research – A Review Gene</i> , Vol. 179 (1996) pp. 89-95 |
| BK | Kessmann et al., <i>Induction of Systemic Acquired Disease Resistance in Plants by Chemicals Annual Review Phytopathology</i> , Vol. 32 (1994) 439-459 |
| BL | Lawton et al., "The Molecular Biology of Systemic Acquired Resistance", <i>Mechanisms of Plant Defense Responses</i> , B. Fritig and M. Legrand (eds.) Kluwer Academic Publishers (Netherlands) 422-432 (1993) |
| BM | Lawton et al., <i>Systemic Acquired Resistance in Arabidopsis Requires Salicylic Acid but Not Ethylene Molecular Plant-Microbe Interactions</i> , Vol. 8 (1995) pp. 863-870 |
| BN | Lawton et al., <i>Benzothiadiazole induces disease resistance in Arabidopsis by activation of the systemic acquired resistance signal transduction pathway The Plant Journal</i> , Vol. 10 (1996) pp. 71-82 |
| BO | Lazar, E. et al., <i>Transforming Growth Factor α: Mutation of Aspartic Acid 47 and Leucine 48 Results in Different Biological Activities Molecular and Cellular Biology</i> , Vol. 8 (1988), pp. 1247-1252 |

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| BP | Lister et al., <i>Recombinant inbred lines for mapping RFLP and phenotypic markers in Arabidopsis thaliana</i> <i>The Plant Journal</i> , Vol. 4 (1993) pp. 745-750 |
| BQ | Liu et al., <i>Generation of a high-quality P1 library of Arabidopsis suitable for chromosome walking</i> <i>The Plant Journal</i> , Vol. 7 (1995) pp. 351-358 |
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| BS | Mauch-Mani et al., <i>Systemic Acquired Resistance in Arabidopsis thaliana Induced by a Predisposing Infection with a Pathogenic Isolate of Fusarium oxysporum</i> <i>Molecular Plant-Microbe Interactions</i> , Vol. 7 (1994) pp. 378-383 |
| BT | Mauch-Mani et al., <i>Production of Salicylic Acid Precursors Is a Major Function of Phenylalanine Ammonia-Lyase in the Resistance of Arabidopsis to Peronospora parasitica</i> <i>The Plant Cell</i> , Vol. 8 (1996) pp. 203-212 |
| BU | Métraux et al., <i>Increase in Salicylic Acid at the Onset of Systemic Acquired Resistance in Cucumber</i> <i>Science</i> , Vol. 250 (1990) pp. 1004-1006 |
| BV | Mindrinos et al., <i>The A. thaliana Disease Resistance Gene RPS2 Encodes a Protein Containing a Nucleotide-Binding Site and Leucine-Rich Repeats</i> <i>Cell</i> , Vol. 78 (1994) pp. 1089-1099 |
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| BY | Parker et al., <i>Characterization of eds1, a Mutation in Arabidopsis Suppressing Resistance to Peronospora parasitica Specified by Several Different RPP Genes</i> <i>The Plant Cell</i> , Vol. 8 (1996) pp. 2033-2046 |
| BZ | Payne et al., <i>Isolation of the genomic clone for pathogenesis-related protein 1a from Nicotiana tabacum cv. Xanthi-nc</i> <i>Plant Molecular Biology</i> , Vol. 11 (1988) pp. 89-94 |
| CA | Rothstein et al., <i>Promoter cassettes, antibiotic-resistance genes, and vectors for plant transformation</i> <i>Gene</i> , Vol. 53, (1987) pp. 153-161. |
| CB | Ryals et al., <i>Signal transduction in systemic acquired resistance</i> <i>Proceedings of the National Academy of Sciences USA</i> , Vol. 92 (1995) pp. 4202-4205 |

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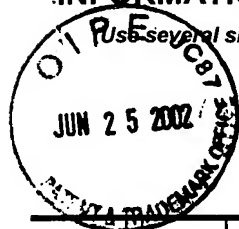
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| CC | Ryals, J.A. et al., <i>Systemic Acquired Resistance The Plant Cell</i> , Vol. 8 (1996) pp. 1809-1819 |
| CD | Ryals, J. et al., <i>The Arabidopsis NIM1 Protein Shows Homology to the Mammalian Transcription Factor Inhibitor IκB The Plant Cell</i> , Vol. 9 (1997) pp. 425-439 |
| CE | Ryals, et al., Sequences, pp. 4-20 |
| CF | Shulaev, et al., <i>Is Salicylic Acid a Translocated Signal of Systemic Acquired Resistance in Tobacco? The Plant Cell</i> , Vol. 7 (1995) pp. 1691-1701 |
| CG | Simoens et al., <i>Isolation of genes expressed in specific tissues of Arabidopsis thaliana by differential screening of a genomic library Gene</i> , Vol. 67 (1988) pp. 1-11 |
| CH | Uknes et al., <i>Acquired Resistance in Arabidopsis The Plant Cell</i> , Vol. 4 (1992) pp. 645-656 |
| CI | Uknes et al., <i>Regulation of Pathogenesis-Related Protein-1a Gene Expression in Tobacco The Plant Cell</i> , Vol. 5 (1993) pp. 159-169 |
| CJ | Uknes et al., <i>Biological Induction of Systemic Acquired Resistance in Arabidopsis Molecular Plant-Microbe Interactions</i> , Vol. 6 (1993) pp. 692-698 |
| CK | Uknes et al., <i>Reduction of risk for growers: methods for the development of disease-resistant crops New Phytology</i> , Vol. 133 (1996) pp. 3-10 |
| CL | Vernooij et al., <i>Salicylic Acid Is Not the Translocated Signal Responsible for Inducing Systemic Acquired Resistance but Is Required in Signal Transduction The Plant Cell</i> , Vol. 6 (1994) pp. 959-965 |
| CM | Vernooij et al., <i>2,6-Dichloroisonicotinic Acid-Induced Resistance to Pathogens Without the Accumulation of Salicylic Acid Molecular Plant-Microbe Interactions</i> , Vol. 8 (1995) pp. 228-234 |
| CN | Verwoerd et al., <i>A small-scale procedure for the rapid isolation of plant RNAs Nucleic Acids Research</i> , Vol. 17 (1989) pp. 2362 |
| CO | Vos et al., <i>AFLP: a new technique for DNA fingerprinting Nucleic Acids Research</i> , Vol. 23 (1995) 4407-4414 |
| CP | Ward et al., <i>Coordinate Gene Activity in Response to Agents That Induce Systemic Acquired Resistance The Plant Cell</i> , Vol. 3 (1991) pp. 1085-1094 |
| CQ | Weymann et al., <i>Suppression and Restoration of Lesion Formation in Arabidopsis lsd Mutants The Plant Cell</i> , Vol. 7 (1995) pp. 2013-2022 |

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